California Integrated Waste Management Board

Board Meeting

February 25, 1998

AGENDA ITEM 19

ITEM:

UPDATE ON MODESTO ENERGY LIMITED PARTNERSHIP/CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD TIRE PILE REMEDIATION AGREEMENT

I. SUMMARY

On June 27, 1997, the California Integrated Waste Management Board (CIWMB) and the Modesto Energy Limited Partnership (MELP) entered into an agreement to remove and incinerate 40,000 tons (4,000,000) passenger tire equivalents from the Oxford Tire Recycling of Northern California. Inc. (OTR) tire piles. The tires removed from the piles are used as fuel for the MELP tires-to-energy facility. The removal and incineration of the tires is a remediation technique that is intended to be combined with remediation efforts by OTR to eliminate the existing OTR tire piles. Currently, the remediation project under the agreement is on schedule and on budget. Both the OTR tire piles and the MELP tires-to-energy facility are located at 4549 Ingram Creek Road, in Westley, California.

II. PREVIOUS BOARD ACTION

The following Board actions are germane to this item:

1. Modesto Energy Limited Partnership (MELP) major waste tire facility permit no. 50-TI-0180
2. Oxford Tire Recycling of Northern California. Inc. major waste tire facility permit no. 50-TI-0010.
3. Clean Up and Abatement Order No. 97-17 issued April 30, 1997 against OTR by the CIWMB
4. MELP/CIWMB Tire Pile Remediation Agreement signed and implemented June 27, 1997.
5. OTR/CIWMB Tire Pile Remediation Agreement signed on July 28. 1997.

III. OPTIONS FOR THE BOARD

Not applicable, since this is an informational item only.

the remediation project to $1,864,000.

Under the current MELP/CIWMB Tire Pile Remediation Agreement, a sliding scale is used to determine the cost for incinerating a ton of burnable tires at MELP. The sliding scale is set so that the cost per ton is significantly higher towards the end of the agreement period than in the beginning. This is in part due to the change in the cost per ton to incinerate a tire in the post-fixed price period (September 11, 1997). Based upon the sliding scale, the average cost over the life of the agreement is $46.60 per ton. This figure is derived by dividing the funds available ($1.86 million) by the number of tires to be incinerated under the agreement (40,000 tons). Through December 31, 1997, the unit cost per ton for incineration of passenger equivalent tires has been $35.60.

Cost per ton is divided into tipping fees, tire retrieval fees, and "incremental expenses". Incremental expenses include items such as additional manpower, extra equipment, additional plant and equipment maintenance, and loss of revenue due to reduced power generation (due to the incineration of low quality tire fuel). The agreement specifies that these costs are also paid by CIWMB. Attachments 2, 3, and 4 describe tipping fees, tire retrieval fees, and incremental expenses in more detail.

MELP/CIWMB Tire Pile Agreement Monitoring

Work performed under the agreement is measured by subtracting the amount of transient tires (tires brought to the site from outside sources) incinerated per month from the total amount of tires incinerated in said month by the tires-to-energy facility. The unit of measurement is tons, since the facility uses scales to determine the amount of tires consumed over a given time period. Under the agreement, one hundred passenger tire equivalents are assigned per ton.

In addition to monitoring the tonnage removed by MELP from the OTR tire piles for incineration, Board staff have been tracking the actual costs of incremental expenses resulting from burning of OTR tires.

Progress

As of February 1, 1998, 27,124 tons have been consumed under the MELP/CIWMB Tire Pile Remediation Agreement. As of January 28, 1998, the CIWMB has been invoiced for $796,296. The amount invoiced to date is for the tires burned from June 27, 1997, through December 31, 1997. The number of tires incinerated from the OTR tire piles indicates that the remediation project is going well. During the summer and fall of 1997, MELP staff moved a large amount of tires from the southern most tire pile and consolidated them into piles closer to the MELP conveyor. This was done in order to help ensure that the tires-to- energy facility would have access to tires scheduled for remediation during the rainy season.

The rate of tire incineration has remained fairly stable at around 3,900 tons per month with the exception of the months of December 1997 and January 1998. Two events lowered the tonnage of tires consumed in December: a five day shut down for semiannual maintenance, and the loss of the use of one boiler as the conveyor removing bottom ash was out of service for several days in mid to late December. The OTR tire tonnage incinerated by MELP in December was 2,097 tons. Conversely, the amount of OTR tire incineration peaked at 4,500 tons in January 1998. This was due to an overall increase in the amount of tires incinerated at MELP during the month of January 1998.

Cost and Time to Remove the Remaining Tires From the OTR Tire Piles

As noted in the earlier section, the number of tons of waste tires estimated to be in the OTR tire piles on May 1, 1997, was 121,800 tons. A total of 7,773 tons were incinerated between May 1, 1997, and the beginning of the agreement (Note: CIWMB was not obligated to pay for the incineration of these tires). Under the agreement, an additional 40,000 tons of tires will be incinerated. The total amount of burnable and nonburnable tires estimated to be left at the OTR tire piles at the end of the MELP/CIWMB Tire Pile Remediation Agreement is therefore 74,000 tons. Of this figure, staff estimates that 24,000 tons are nonburnable (oversized) tires and 50,000 tons (5,000,000 passenger tire equivalents) are burnable (see Attachment 5).

The cost to incinerate the burnable tires is $46.60 per ton . The cost to prepare and incinerate the nonburnable tires ranges from $137 to $172 per ton, depending on the size and condition of the giant tires. Using these figures, and adding in a 20% contingency fee, the estimated cost of removal and incineration of the remaining OTR tire piles ranges from $6,750,000 to $7,750,000 (see Attachment 6).

The time to remove the balance of the OTR tire piles is dependent on the amount of giant tires actually within the tire piles, and the incineration capacity available to the remediation project. The earliest date that the OTR tire piles could be remediated by incineration is April 2000. To accomplish this would require several things:

1. Remediation would need to continue without interruption from the end of the agreement period.
2. The amount of MELP incineration capacity available to remediate the OTR would need to remain at the current level of 80%.
3. The nonburnable (giant) tires would need to be reduced on site to a size and shape that MELP could incinerate at the same time that MELP was incinerating passenger tire equivalents.

Relative Costs of Incineration vs. Monofilling

As noted above, staff estimates that, at the end of the agreement, there will be approximately 50,000 tons of burnable tires and 24,000 tons of nonburnable (giant) tires left in the OTR tire piles. The cost to incinerate the burnable tires is $46.60 per ton . The cost to prepare and incinerate the nonburnable tires ranges from $137 to $172 per ton, depending on the size and condition of the giant tires. Using these figures, and adding in a 20% contingency fee, the estimated cost of removal and incineration of the remaining OTR tire piles ranges from $6,750,000 to $7,750,000.

The February 1997 OTR tire piles closure plan contained a total cost for remediation of the OTR tire piles by shredding and monofilling. The closure plan used a figure of 7,200,000 passenger tire equivalents (72,000 tons) on site. The closure plan assumed that there were no oversized tires on site, and therefore did not include the additional costs for shredding oversized tires. The plan estimated the closure cost to be $1,182,000, including a 20% contingency amount for cost over runs. In a letter to Mr. Ralph Chandler of the CIWMB, from Mr. Mark Kirkland from Oxford Tire Recycling of Northern California, Inc., dated March 5, 1997, Mr. Kirkland indicated that the closure of the OTR tire pile would cost approximately $17.00 per ton.

some of the costs appear to be very low. The figure of $17.00 per ton for shredding and monofilling passenger tires used in the closure plan is roughly three times too low; a more representative figure would be $50 per ton, based on recently-completed tire cleanup projects. As noted previously, one third of the remaining tires are oversized, a condition not reflected in the closure plan cost estimates. Very few companies have the capability to shred oversized tires due to the special equipment that is required. Because of the difficulty in handling these tires, staff estimates that, at a minimum, the cost for shredding and monofilling of the oversized tires would be the same as for incineration of such tires, $137-$172 per ton. Using these figures, a more accurate cost for monofill disposal of the remaining tires on site would be $5,790,000 to $6,630,000 without a contingency fee, or $6,950,000 to $7,950,000 with a 20% contingency fee. These figures are actually slightly higher than the calculated cost for remediation by incineration.

California

Attachment 1

State of California CIWMB FORM 5000 (revised 2/95)	California Integrated Waste Management Board
STANDARDIZED COMPOSTING PERMIT	

1. Facility/Permit Number (SWIS): 04-AC-0020	
2. Name of Facility: City of Chico Leaf Composting Operation	Address/Location: Chico Municipal Airport Cohasset Road Chico, CA
3. Local Enforcement Agency: Butte County Health Department	Address: P.O. Box 5364 411 Main Street Chico, CA 95927-5364
4. Signature of Local Enforcement Agency Approving Officer: 5. Please Print or Type Name and Title of Approving Officer:	6. Date of Signature:
7. Date Received by CIWMB: MAR 2 1998	
8. Signature of CIWMB Approving Officer: 9. Please Print or Type Name and Title of Approving Officer:	10. Date of Signature:
11. Date of Permit Issuance:	12. Permit Review Due Date:

The facility for which this permit has been issued shall only be operated in accordance with the description provided in the application pursuant to Section 18105.1 and Report of Composting Site Information pursuant to Section 17863.

13. Legal Description of Facility: (description may be attached)

Range 1E, Township 22N, Mt. Diablo Base & Meridian

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...o, California

14. Findings:

a. This permit is consistent with standards adopted by the California Integrated Waste Management Board pursuant to Public Resources Code Section 44010.

b. An environmental determination (i.e., Notice of Determination), has been filed with the State Clearing House (#98012015) for all facilities that are not exempt from CEQA and documents pursuant to Public Resources Code Section 21081.6.

c. The following authorized agent Charles W. Bird, LEA has made the determination that the facility is consistent with the applicable general plan, as required by Public Resources Code, Section 50000.5(a).

d. The operation of this facility is consistent with the [ ] County Solid Waste Management Plan (50000), or the [ ] County Integrated Waste Management Plan (50001).

e. The design of the proposed facility or the design and operation of an existing facility, as appropriate, is in compliance with State Minimum Standards for Composting Operations Regulatory Requirements, Title 14, Division 7, Chapter 3.1 (commencing with Section 17850) of the California Code of Regulations.

f. Public Resources Code Section 44009 has been complied with.

15. In addition to this permit, the facility may have one or more of the following permits or restrictions on its operations. Persons seeking information regarding these items should contact the appropriate regulatory agency.

Report of Composting Site Information
State Water Resources Control Board/Regional Water Quality Control Board Waste Discharge Requirements or Waiver
National Pollutant Discharge Elimination System (Stormwater) Permit
Fire Protection District Findings
Mitigation and Monitoring Measures (pursuant to the California Environmental Quality Act)
Conditional Use Permit
California Environmental Quality Act Environmental Impact Report or Negative Declaration
Air Pollution Permits and Variances
Coastal Commission Restrictions

16. Terms and Conditions:

a. The operator shall comply with applicable state minimum standards set forth in Title 14, Division 7, Chapter 3.1 (commencing with Section 17850) of the California Code of Regulations.

b. The operator shall comply with all mitigation and monitoring measures developed in accordance with a certified environmental document filed pursuant to Public Resources Code Section 21081.6.

c. The operator shall maintain a copy of this standardized permit at the facility to be available at all times to facility, enforcement agency, or board personnel.

d. The operator shall maintain and make available for inspection by the enforcement agency and board all correspondence and reports provided to other regulatory agencies that have jurisdiction over the facility.

e. The operator shall be responsible for identifying the types of feedstocks accepted for processing.

f. The design capacity of 120,000 cubic-yards of material undergoing the composting process shall not be exceeded. This requirement does not include on-site storage of feedstock or stabilized compost.

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g. Additional clarifying information concerning the design and operation of the composting facility sha be furnished upon written request of the enforcement agency, or the board.

h. The operator shall notify the enforcement agency, in writing, within thirty (30) days of receipt of t test results, of any noncompliance with Sections 17868.2 and 17868.3 of Chapter 3.1, Division 7, Tit 14, of the California Code of Regulations.

i. Unless specifically permitted or allowed under Title 14, Division 7, Chapter 3.1 of the California Coc of Regulations, the facility shall not accept the following materials:

(1) Designated wastes as defined in Title 23, Chapter 15, Section 2522 of the California Code of Regulations

(2) Hot Ashes/Burning materials

(3) Medical wastes as defined in Section 25023.2 of the Health & Safety Code

(4) Hazardous Wastes as defined in Section 25117 of the Health & Safety Code

(5) Liquid Wastes as defined in Title 23, Chapter 15, Section 2601 of the California Code of Regulations (unless approved by RWQCB and the enforcement agency)

j. The following activities are prohibited:

(1) Scavenging

(2) Salvaging

(3) Discharge of wastes off-site

(4) Vector propagation or harborage

k. The facility, if located outside of a city, shall be maintained in compliance with the flammable clearance provisions, pursuant to Public Resources Code Section 44151.

Environmental Health

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Chico, California

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